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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>*07 December 2010*</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *29-33,43-49,51,52 and 54-56* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *29-33,43-49,51,52 and 54-56* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

This Office action has been issued in response to amendment filed on 12/07/2010.

Claims 29-33, 43-49, 51-52 and 54-56 are pending and claims 1-28, 34, 42, 50 and 53 are

cancelled.

Response to Arguments

With respect to Applicant's argument stating that Reisman is not a valid prior art because the

applicant was file on 28 june 2001 nine (9) months prior to the failing of Reisman, Examiner respectfully

disagrees. The Provisinoal application of Reisman reference is dated back March, 22, 2001, three (3)

month prior to the filling of the instant application hence it is a valid prior art. The provisional application

60/278033 of the Reisman reference containing all the data used to reject the claim. The following is

mapping of the specification of the patent reference and the provisional specification:

Column 2, lines 3-8 → page 15-20

Column 4, lines 19-28 → page 8, lines 2-8 and page 49, lines 5-16

Column 6, lines 10-23 → page 9, lines 19-23 and page 10, lines 1-4

Column 25, lines 48-65   -→ page 49, lines 5-16

With respect to Applicant's argument regarding the combination of Livesay with Reisman,

Examiner did provide a motivation to combine and would like to request Applicant to refer to guideline of

the KSR provided in page 6 of the remark section wherein at least rational (E) overcome Applicant's

argument.

In light of Applicant's amendment/arguments, the 35 USC 101 rejection is withdrawn.

Specification Objection

1.   The specification is objected to because it lacks antecedent basis for claimed computer

readable medium.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this

Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this

title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a

whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said

subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 29-33 and 35-36 and 54-56 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Livesay, Jeffery et al (hereinafter Livesay) US Publication No 20080126265

and Reisman, Richard (hereinafter Reisman) US Patent No. 7406436 in view of Elad, Joseph B.

et al (hereinafter Elad) US Patent 7512558.

As per claim 29, Livesay discloses:

An electronic commerce system, comprising:

       a global content directory server (Abstract: lines 1-2 and FIG. 4, components 401 and 406)

coupled with one or more seller databases over a network, the global content directory server

providing a plurality of buyer computers access to the one or more seller databases,

(Paragraphs [0088] and [0129], indicate global content directory (FIG. 4, components 401 and 406)

providing the buyer access to the seller database).

the global content directory server comprising:

a storage medium stored therein a schema translation tool comprising:

a storage medium stored therein a mapping module configured to:

> **receive a source schema data and a target schema data,**

> (paragraphs [0079] and [0100], indicate the plurality of schema (XML data files)).

> Livesay does not go into detail regarding the hierarchy of product within the schemas, however in an analogous art of data mapping/translating, Reisman teaches:

> **the source schema data and target schema data each comprising a taxonomy comprising a hierarchy of classes into which products are categorized wherein the target schema comprises a different taxonomy then the taxonomy of the source schema** (Column 25, lines 48-65, wherein the XML files contain different item structure taxonomy)(page 49, lines 5-16 in the provisional application 60/278033)

> **at least the source schema further comprising a product ontology associated with one or more of the classes, each product ontology comprising one or more product attributes** (Column 25, lines 48-65, wherein the item attributes variation is the ontology criteria))

> **and associate one or more source classes of the source schema with one or more target classes of the target schema** (Column 25, lines 48-65, wherein the item conversion / matching is the association of items (classes) within the XML file)))

> <u>**wherein at least one of the target classes is a parent class**</u> (Column 6, lines 14-23, wherein the class is the parent) <u>**and the product ontology for each target class is based on the product of the associated source classes[[.]] by determining an intersection of the product attributes included in the product of the target classes**</u> (column 6, lines 24-33, wherein the matching criteria is the product intersection)

> Therefore, it would have been obvious to a person in the ordinary skill in the art at the time of the invention to combine Livesay and Reisman by incorporating the teaching of Reisman into the system of

Livesay. One having ordinary skill in the art would have found it motivated to use the product

categorization of Reisman into the system of Livesay for the purpose of leveraging XML schema when

defining commence or trade product in order to facilitate data exchange and parsing between partners.

Livesay and Reisman do not go into detail regarding storing product ontology, however in an

analogous art of data mapping/translating, Elad teaches:

and a storage medium stored therein an ontology generation module configured to generate

a product ontology for each of the target classes based on the product ontologies of the associated

source classes (Fig. 17 and 22 and column 13, lines 39-46, wherein the Market Information agent uses

ontology sub module providing translation of dimension (class) and determining market feature (product)

of requested by the buyer and logically implied by the offering of the seller)

Therefore, it would have been obvious to a person in the ordinary skill in the art at the time of the

invention to combine Livesay and Reisman and Elad by incorporating the teaching of Elad into the

system of Livesay and Reisman. One having ordinary skill in the art would have found it motivated to use

the product ontology of Elad into the system of Livesay and Reisman for the purpose of capturing and

storing product relationship in order to augment mapping association of the plurality of schemas.

As per claim 30, Livesay and Reiman and Elad teach:

The system of Claim 29, wherein the mapping module is further configured to:

receive input from at least one of the plurality of buyer computers indicating one or more

source classes to be associated with one or more target classes (Paragraph [0155], wherein the input

parameter links buyer to seller)(Livesay).

and associate the source classes with the target classes in response to the input from a user

associated with at least one of the plurality of buyer computers (Paragraph [0155], wherein the input

parameter links buyer to seller)(Livesay)

(Column 25, lines 48-65, wherein the item conversion / matching is the association of items

(classes) within the XML file))(Reiman).

As per claim 31, Livesay and Reiman and Omoigui teach:

The system of Claim 30, wherein the mapping module is further configured to:

generate a graphical representation of the taxonomies of the source and target <u>schema data</u>**,**

the graphical representation allowing at least one of the plurality of buyer computers to graphically

associate classes of the source schema with classes of the target schema

(Column 2, lines 3-8 and column 25, lines 48-65, wherein the item conversion / matching is the

association of items (classes) within the XML file and wherein the IBM's Visual XML transformation is

the mapping module)(Reiman).

As per claim 32, Livesay and Reiman and Elad teach:

The system of Claim 29, wherein the source classes are leaf classes of the source schema

data (Column 6, lines 10-23, wherein the subcategory incorporates a leaf class) (Reiman)

As per claim 33, Livesay and Reiman and Elad teach:

The system of Claim 29, wherein the ontology generation module is further configured to

generate a product ontology for a target class by determining the intersection of the product

attributes included in the product ontologies of the associated source classes (Fig. 17 and 22 and

column 13, lines 39-46, wherein the Market Information agent uses ontology sub module providing

translation of dimension (class) and determining market feature (product) of requested by the buyer and

logically implied by the offering of the seller and wherein matching of goods of seller and buyer is the

intersection of goods)(Elad)

As per claim 35, Livesay and Reiman and Elad teach:

The system of Claim 29, wherein:

at least the source schema further comprises a seller ontology associated with one or more

of the classes, each seller ontology comprising one or more attributes associated with one or more

sellers of a product (Column 25, lines 48-65, wherein the item attributes variation is the ontology

criteria) (Reiman).

and the ontology generation module is further configured to generate a seller ontology for

each of the target classes based on the seller ontologies of the associated source classes (Paragraph

[0136], wherein the determining profile link with best fit criteria (ontologies) is determining association

between product parameters (attributes) between seller and buyer)(Livesay).

As per claim 36, Livesay and Reiman and Elad teach:

 The system of Claim 29, wherein:

one or more pointers identifying the one or more seller databases are associated with at

least one source class (Paragraphs [0088] and [0129], indicate the database product identification linking

the buyer and seller)(Livesay).

the one or more seller databases including product data associated with one or more

products categorized in the source class (Paragraphs [0088] and [0129], indicate the database product

identification linking the buyer and seller)(Livesay).

and the mapping module is further configured to associate the one or more pointers of the source class with one or more target classes associated with the source class

(Column 25, lines 48-65, wherein the item conversion / matching is the association of items (classes) within the XML file))(Reiman).

As per claim 54, Livesay discloses:

A electronic commerce system, comprising:

a global content directory server coupled with one or more seller databases over a network, (Abstract: lines 1-2 and FIG. 4, components 401 and 406)

the global content directory server providing a plurality of buyer computers access to the one or more seller databases (Paragraphs [0088] and [0129], indicate global content directory (FIG. 4, components 401 and 406) providing the buyer access to the seller database),

the global content directory server comprising:

a storage medium stored therein a schema translation tool comprising:

a storage medium stored therein a mapping configured to:

receive a source schema _data_ and [[a]] target schema _data_, (paragraphs [0079] and [0100], indicate the plurality of schema (XML data files)),

communicate the graphical representation to at least one of the plurality of buyer computers (Paragraphs [0088] and [0129], indicate the database product identification linking the buyer and seller);

receive input from at least one of the plurality of buyer computers indicating one or more source classes of the source schema data to be associated with one or more target classes of the target schema data (paragraph [0161], wherein the link is the graphical communication between buyer and seller);

associate one or more source classes with one or more target classes in response to the input from at least one of the plurality of buyer computers (paragraph [0161], wherein the link is the graphical communication between buyer and seller);

at least the source schema data further comprising one or more pointers identifying one or more seller databases and associated with one or more classes, the one or more seller databases including product data associated with one or more products categorized in the classes (paragraph [0161], wherein the link is the graphical communication between buyer and seller);

Livesay does not go into detail regarding the hierarchy of product within the schemas, however in an analogous art of data mapping/translating, Reisman teaches:

and associate the pointers of the source classes with one or more target classes associated with the source class (Column 25, lines 48-65, wherein the item conversion / matching is the association of items (classes) within the XML file).

the source schema <u>data</u> and the target schemas <u>schema</u> data each comprising a taxonomy comprising a hierarchy of classes into which products may be categorized,

(Column 25, lines 48-65, wherein the XML files contain item structure taxonomy).

wherein the target schema <u>data</u> comprises a different taxonomy then the taxonomy of the source schema <u>data</u>,

(Column 25, lines 48-65, wherein the XML files contain different item structure taxonomy)

at least the source schema data further comprising a product ontology associated with one or more of the classes,

(Column 25, lines 48-65, wherein the item attributes variation is the ontology criteria).

each product ontology comprising one or more product attributes,

(Column 25, lines 48-65, wherein the item attributes variation is the ontology criteria).

generate a graphical representation of the taxonomies of the source schema data and target schemas schema data, the graphical representation allowing at least one of a plurality of buyer computers to graphically associate the classes of the source schema data with classes of the target schema data;

(Column 2, lines 3-8 and column 25, lines 48-65, wherein the item conversion / matching is the association of items (classes) within the XML file and wherein the IBM's Visual XML transformation is the mapping module)

generation module configured to generate a product for each of the target classes based on the intersection of the product attributes included in the product of the associated source classes

(column 6, lines 24-33, wherein the matching criteria is the product intersection)

Therefore, it would have been obvious to a person in the ordinary skill in the art at the time of the invention to combine Livesay and Reisman by incorporating the teaching of Reisman into the system of Livesay. One having ordinary skill in the art would have found it motivated to use the product categorization of Reisman into the system of Livesay for the purpose of leveraging XML schema when defining commence or trade product in order to facilitate data exchange and parsing between partners. Livesay and Reisman do not go into detail regarding storing product ontology, however in an analogous art of data mapping/translating, Omoigui teaches:

a storage medium stored therein an ontology generation module configured to generate a product ontology for each of the target classes of the product attributes included in the product ontologies of the associated source classes

(Paragraphs [0528]-[0529], wherein ontology mapping table is the storage of ontology association)

Therefore, it would have been obvious to a person in the ordinary skill in the art at the time of the invention to combine Livesay and Reisman and Omoigui by incorporating the teaching of Omoigui into

the system of Livesay and Reisman. One having ordinary skill in the art would have found it motivated to

use the product ontology of Omoigui into the system of Livesay and Reisman for the purpose of

capturing and storing product relationship in order to augment mapping association of the plurality of

schemas.

As per claim 55, Livesay discloses:

A method for translating between schemas, comprising:

receiving, by a server, information regarding a source schema <u>data</u> and [[a]] target schema <u>data</u>

(paragraphs [0079] and [0100], indicate the plurality of schema (XML data files)),

at least the source schema data further comprising one or more pointers identifying one or

more seller databases and associated with one or more classes, the one or more seller databases

including product data associated with one or more products categorized in the classes (paragraph

[0161], wherein the link is the graphical communication between buyer and seller)**;**

communicating, by the server, the graphical representation to at least one of the plurality of buyer

computers;

(paragraph [0161], wherein the link is the graphical communication between buyer and seller)**;**

Livesay does not go into detail regarding product taxomony/ontology of schemas data, however in an

analogous art of data mapping/translating, Reisman teaches:

the source schema data and the target schemas schema data each comprising a taxonomy

comprising a hierarchy of classes into which products may be categorized,

(Column 25, lines 48-65, wherein the XML files contain different item structure taxonomy).

at least the source schema data further comprising a product ontology associated with one or more

of the classes, each product ontology comprising one or more product attributes,

(Column 25, lines 48-65, wherein the item attributes variation is the ontology criteria).

generating, by the server, a graphical representation of the taxonomies of the source schema data

and the target schemas schema data, the graphical representation allowing at least one of a

plurality of buyer computers to graphically associate the classes of the source schema data with

classes of the target schema data;

(Column 2, lines 3-8 and column 25, lines 48-65, wherein the item conversion / matching is the

association of items (classes) within the XML file and wherein the IBM's Visual XML transformation is

the mapping module)

receiving, by the server, input from at least one of the plurality of buyer computers indicating one

or more source classes of the source schema data to be associated with one or more target classes of

the target schema data;

(column 2, lines 3-8Column 25, lines 48-65, wherein the schema conversion/mapping is the

association of the plurality of schemas).

associating, by the server, one or more source classes with one or more target classes in response to

the input from at least one of the plurality of buyer computers;

(column 2, lines 3-8Column 25, lines 48-65, wherein the schema conversion/mapping is the

association of the plurality of schemas).

associating, by the server, the pointers of the source classes with one or more target classes

associated with the source class;

(column 2, lines 3-8Column 25, lines 48-65, wherein the schema conversion/mapping is the

association of the plurality of schemas).

generation module configured to generate a product for each of the target classes based on

the intersection of the product attributes included in the product of the associated source classes

(column 6, lines 24-33, wherein the matching criteria is the product intersection)

Therefore, it would have been obvious to a person in the ordinary skill in the art at the time of the

invention to combine Livesay and Reisman by incorporating the teaching of Reisman into the system of

Livesay. One having ordinary skill in the art would have found it motivated to use the product

categorization of Reisman into the system of Livesay for the purpose of leveraging XML schema when

defining commence or trade product in order to facilitate data exchange and parsing between partners.

Livesay and Reisman do not go into detail regarding product ontology intersection, however in an

analogous art of data mapping/translating, Omoigui teaches:

and generating, by the server, a product ontology for each of the target classes of the product

attributes included in the product ontologies of the associated source classes

(Paragraph [0602], wherein the Semantic relevance is based on intersection of categories which

highest ontology-based semantic)(Omiogui)

Therefore, it would have been obvious to a person in the ordinary skill in the art at the time of the

invention to combine Livesay and Reisman and Omoigui by incorporating the teaching of Omoigui into

the system of Livesay and Reisman. One having ordinary skill in the art would have found it motivated to

use the product ontology of Omoigui into the system of Livesay and Reisman for the purpose of

capturing and storing product relationship in order to augment mapping association of the plurality of

schemas.

As per claim 56, Livesay discloses:

A computer-readable medium embodied with software for translating between schemas, the

software when executed using one or more computers is configured to:

receive information regarding a source schema data and [[a]] target schema data,

(paragraphs [0079] and [0100], indicate the plurality of schema (XML data files)),

at least the source schema data further comprising one or more pointers identifying one or more seller databases and associated with one or more classes, the one or more seller databases including product data associated with one or more products categorized in the classes (paragraph [0161], wherein the link is the graphical communication between buyer and seller);

communicate the graphical representation to at least one of the plurality of buyer computers;

(paragraph [0161], wherein the link is the graphical communication between buyer and seller);

Livesay does not go into detail regarding product taxomony/ontology of schemas data, however in an analogous art of data mapping/translating, Reisman teaches

the source schema data and the target schemas schema data each comprising a taxonomy comprising a hierarchy of classes into which products may be categorized,

(Column 25, lines 48-65, wherein the XML files contain different item structure taxonomy).

at least the source schema data further comprising a product ontology associated with one or more of the classes, each product ontology comprising one or more product attributes,

(Column 25, lines 48-65, wherein the item attributes variation is the ontology criteria).

generate a graphical representation of the taxonomies of the source schema data and the target schemas schema data, the graphical representation allowing at least one of a plurality of buyer computers to graphically associate the classes of the source schema data with classes of the target schema data;

(Column 2, lines 3-8 and column 25, lines 48-65, wherein the item conversion / matching is the association of items (classes) within the XML file and wherein the IBM's Visual XML transformation is the mapping module)

receive input from at least one of the plurality of buyer computers indicating one or more source classes of the source schema data to be associated with one or more target classes of the target schema data;

(column 2, lines 3-8Column 25, lines 48-65, wherein the schema conversion/mapping is the association of the plurality of schemas).

associate one or more source classes with one or more target classes in response to the input from at least one of the plurality of buyer computers;

(column 2, lines 3-8Column 25, lines 48-65, wherein the schema conversion/mapping is the association of the plurality of schemas).

associate the pointers of the source classes with one or more target classes associated with the source class;

(column 2, lines 3-8Column 25, lines 48-65, wherein the schema conversion/mapping is the association of the plurality of schemas).

generation module configured to generate a product for each of the target classes based on the intersection of the product attributes included in the product of the associated source classes

(column 6, lines 24-33, wherein the matching criteria is the product intersection)

Therefore, it would have been obvious to a person in the ordinary skill in the art at the time of the invention to combine Livesay and Reisman by incorporating the teaching of Reisman into the system of Livesay. One having ordinary skill in the art would have found it motivated to use the product categorization of Reisman into the system of Livesay for the purpose of leveraging XML schema when defining commence or trade product in order to facilitate data exchange and parsing between partners. Livesay and Reisman do not go into detail regarding product ontology intersection, however in an analogous art of data mapping/translating, Omoigui teaches:

and generate a product ontology for each of the target classes of the product attributes included in

the product ontologies of the associated source classes

(Paragraph [0602], wherein the Semantic relevance is based on intersection of categories which

highest ontology-based semantic)(Omiogui)

Therefore, it would have been obvious to a person in the ordinary skill in the art at the time of the

invention to combine Livesay and Reisman and Omoigui by incorporating the teaching of Omoigui into

the system of Livesay and Reisman. One having ordinary skill in the art would have found it motivated to

use the product ontology of Omoigui into the system of Livesay and Reisman for the purpose of

capturing and storing product relationship in order to augment mapping association of the plurality of

schemas.

3.   Claims 37-41, 43-49, and 51-52 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Reisman, Richard (hereinafter Reisman) US Patent No. 7406436 in view of

Elad, Joseph B. et al (hereinafter Elad) US Patent 7512558.

As per claim 37, Reisman discloses:

A computer-implemented method of translating schema data, comprising:

receiving, by a server, a source schema data and a target schema data, the source and target

schemas each comprising a taxonomy comprising a hierarchy of classes into which products may be

categorized (Column 25, lines 48-65, wherein the XML files contain item structure taxonomy))

wherein the target schema data comprises a different taxonomy then the taxonomy of the

source schema data (Column 25, lines 48-65, wherein the XML files contain different item structure

taxonomy),

at least the source schema further comprising a product ontology associated with one or more of the classes, each product ontology comprising one or more product attributes (Column 25, lines 48-65, wherein the item attributes variation is the ontology criteria)

associating, by the server, one or more source classes of the source schema with one or more target classes of the target schema;

(Column 25, lines 48-65, wherein the item conversion / matching is the association of items (classes) within the XML file)

wherein at least one of the target classes is a parent class (Column 6, lines 14-23, wherein the class is the parent) **and the product for each target class is based on the product of the associated source classes[[.]] by determining an intersection of the product attributes included in the product of the target classes** (column 6, lines 24-33, wherein the the matching criteria is the product intersection) Reisman does not go into detail regarding storing/reporting product ontology, however in an analogous art of data mapping/translating, Elad teaches:

and generating, by the server, a product ontology for each of the target classes based on the product ontologies of the associated source classes

(Fig. 17 and 22 and column 13, lines 39-46, wherein the Market Information agent uses ontology sub module providing translation of dimension (class) and determining market feature (product) of requested by the buyer and logically implied by the offering of the seller)

Therefore, it would have been obvious to a person in the ordinary skill in the art at the time of the invention to combine Reisman and Elad by incorporating the teaching of Elad into the system of and Reisman. One having ordinary skill in the art would have found it motivated to use the product ontology of Elad into the system of Reisman for the purpose of capturing and storing product relationship in order to augment mapping association of the plurality of schemas.

As per claim 38, Reisman and Elad teach:

The method of Claim 37, further comprising:

receiving input from at least one of a plurality of buyer computers indicating one or more source classes to be associated with one or more target classes (Column 2, lines 3-8, Column 25, lines 48-65, wherein the item conversion / matching is the association of items (classes) within the XML file))(Reiman).

and associating the source classes with the target classes in response to the input from at least one of the plurality of buyer computers (Column 2, lines 3-8 and column 25, lines 48-65, wherein the item conversion / matching is the association of items (classes) within the XML file)(Reiman).

As per claim 39, Reisman and Omoigui teach:

The method of Claim 38, further comprising:

generating a graphical representation of the taxonomies of the source and target schemas, the graphical representation allowing at least one of the plurality of buyer computers to graphically associate classes of the source schema with classes of the target schema

(Column 25, lines 48-65, wherein the IBM Visual XML is the graphical tool)(Reiman).

and communicating the graphical representation to at least one of the plurality of buyer computers (Column 2, lines 3-8 and column 25, lines 48-65, wherein the item conversion / matching is the association of items (classes) within the XML file)(Reiman).

As per claim 40, Reisman and Elad teach:

The method of Claim 37, wherein the source classes are leaf classes of the source schema.
(Column 6, lines 10-23, wherein the subcategory incorporates a leaf class)(Reiman)

As per claim 41, Reisman and Elad teach:

The method of Claim 37, further comprising generating a product ontology for a target

class by determining the intersection of the product attributes included in the product ontologies of

the associated source classes (Fig. 17 and 22 and column 13, lines 39-46, wherein the Market

Information agent uses ontology sub module providing translation of dimension (class) and determining

market feature (product) of requested by the buyer and logically implied by the offering of the seller and

wherein matching of goods of seller and buyer is the intersection of goods)(Elad)

As per claim 43, Reisman and Elad teach:

The method of Claim 37, wherein:

at least the source schema further comprises a seller ontology associated with one or more

of the classes, each seller ontology comprising one or more attributes associated with one or more

sellers of a product (Column 2, lines 3-8 and column 25, lines 48-65, wherein the item conversion /

matching is the association of items (classes) within the XML file)(Reiman).

and the method further comprises generating a seller ontology for each of the target classes

based on the seller ontologies of the associated source classes.

(Fig. 17 and 22 and column 13, lines 39-46, wherein the Market Information agent uses ontology

sub module providing translation of dimension (class) and determining market feature (product) of

requested by the buyer and logically implied by the offering of the seller)(Elad)

As per claim 44, Reisman and Elad teach:

The method of Claim 37, wherein:

one or more pointers identifying the one or more seller databases are associated with at

least one source class (Column 2, lines 3-8 and column 4, lines 19-28 and column 25, lines 48-65,

wherein the item conversion / matching is the association of items (classes) within the XML file)(

(Reiman).

the one or more seller databases including product data associated with one or more

products categorized in the source class (Column 2, lines 3-8 and column 4, lines 19-28 and column 25,

lines 48-65, wherein the item conversion / matching is the association of items (classes) within the XML

file)(Reiman).

and the method further comprises associating the pointers of the source class with one or

more target classes associated with the source class (Column 25, lines 48-65, wherein the item

conversion / matching is the association of items (classes) within the XML file)(Reiman).

As per claim 45, Riesman discloses:

A computer-readable medium embodied with software for translating between schemas, the

software when executed using one or more computers is configured to:

receive a source schema data and a target schema data, the source and target schemas each

comprising a taxonomy comprising a hierarchy of classes into which products may be categorized

(Column 25, lines 48-65, wherein the XML files contain item structure taxonomy).

wherein the target schema data comprises a different taxonomy then the taxonomy of the

source schema data (Column 25, lines 48-65, wherein the XML files contain different item structure

taxonomy)

at least the source schema data further comprising a product ontology associated with one

or more of the classes, each product ontology comprising one or more product attributes;

(Column 25, lines 48-65, wherein the item attributes variation is the ontology criteria)

associate one or more source classes of the source schema data with one or more target

classes of the target schema data;

(Column 25, lines 48-65, wherein the XML files contain different item structure taxonomy)

wherein at least one of the target classes is a parent class (Column 6, lines 14-23, wherein the class is the parent) **and the product ontology for each target class is based on the product of the associated source classes[[.]] by determining an intersection of the product attributes included in the product of the target classes** (column 6, lines 24-33, wherein the matching criteria is the product intersection)

Reisman does not go into detail regarding storing/reporting product ontology, however in an analogous art of data mapping/translating, Elad teaches:

and generate a product ontology for each of the target classes based on the product ontologies of the associated source classes (Fig. 17 and 22 and column 13, lines 39-46, wherein the Market Information agent uses ontology sub module providing translation of dimension (class) and determining market feature (product) of requested by the buyer and logically implied by the offering of the seller)

Therefore, it would have been obvious to a person in the ordinary skill in the art at the time of the invention to combine Livesay and Reisman and Elad by incorporating the teaching of Elad into the system of Livesay and Reisman. One having ordinary skill in the art would have found it motivated to use the product ontology of Elad into the system of Livesay and Reisman for the purpose of capturing and storing product relationship in order to augment mapping association of the plurality of schemas.

As per claim 46, Reisman and Elad teach:

The computer-readable medium of Claim 45, wherein the software is further configured to: receive input from at least one of a plurality of buyer computers indicating one or more source classes to be associated with one or more target classes;

(Column 2, lines 3-8, Column 25, lines 48-65, wherein the item conversion / matching is the

association of items (classes) within the XML file)(Reiman).

and associate the source classes with the target classes in response to the input from at least

one of the plurality of buyer computers (Column 2, lines 3-8, Column 25, lines 48-65, wherein the item

conversion / matching is the association of items (classes) within the XML file)(Reiman).

As per claim 47, Reisman and Omoigui teach:

The computer-readable medium of Claim 46, wherein the software is further configured to:

generate a graphical representation of the taxonomies of the source and target schemas, the

graphical representation allowing at least one of the plurality of buyer computers to graphically

associate classes of the source schema with classes of the target schema;

(Column 2, lines 3-8 and column 25, lines 48-65, wherein the item conversion / matching is the

association of items (classes) within the XML file and wherein the IBM's Visual XML transformation is

the mapping module)(Reiman).

and communicate the graphical representation to at least one of the plurality of buyer

computers.

(Column 2, lines 3-8 and column 25, lines 48-65, wherein the item conversion / matching is the

association of items (classes) within the XML file and wherein the IBM's Visual XML transformation is

the mapping module)(Reiman).

As per claim 48, Reisman and Elad teach:

The computer-readable medium of Claim 45, wherein the source classes are leaf classes of

the source schema. (Column 6, lines 10-23, wherein the subcategory incorporates a leaf class))(Reiman)

As per claim 49, Reisman and Elad teach:

The computer-readable medium of Claim 45, wherein the software is further configured to generate a product ontology for a target class by determining the intersection of the product attributes included in the product ontologies of the associated source classes.

(Fig. 17 and 22 and column 13, lines 39-46, wherein the Market Information agent uses ontology sub module providing translation of dimension (class) and determining market feature (product) of requested by the buyer and logically implied by the offering of the seller and wherein matching of goods of seller and buyer is the intersection of goods)(Elad)

As per claim 51, Reisman and Elad teach:

The computer-readable medium of Claim 45, wherein:

at least the source schema further comprises a seller ontology associated with one or more of the classes, each seller ontology comprising one or more attributes associated with one or more sellers of a product (Column 2, lines 3-8 and column 25, lines 48-65, wherein the item attributes variation is the ontology criteria)(Reiman).

and the software is further configured to generate a seller ontology for each of the target classes based on the seller ontologies of the associated source classes (Column 2, lines 3-8 and column 25, lines 48-65, wherein the item attributes variation is the ontology criteria) (Reiman).

As per claim 52, Reisman and Elad teach:

The computer-readable medium of Claim 45, wherein:

        one or more pointers identifying one or more seller databases are associated with at least one source class ((Column 2, lines 3-8 and column 4, lines 19-28 and column 25, lines 48-65, wherein the item conversion / matching is the association of items (classes) within the XML file))((Reiman).

        the seller databases including product data associated with one or more products categorized in the source class (Column 2, lines 3-8 and column 4, lines 19-28 and column 25, lines 48-65, wherein the item conversion / matching is the association of items (classes) within the XML file)) (Reiman).

        And the software is further configured to associate the pointers of the source class with one or more target classes associated with the source class (Column 2, lines 3-8 and column 4, lines 19-28 and column 25, lines 48-65, wherein the item conversion / matching is the association of items (classes) within the XML file)((Reiman).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tarek Chbouki whose telephone number is 571-2703154. The examiner can normally be reached on Mon-Fri 7:30 am to 5:00 pm EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Neveen Abel-Jalil can be reached at

571-2724074. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR

CANADA) or 571-272-1000.

/TAREK CHBOUKI/

Examiner, Art Unit 2165

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